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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,228

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Masaki Nishioka

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MILES & STOCKBRIDGE PC
1751 PINNACLE DRIVE
SUITE 500
MCLEAN, VA 22102-3833

EXAMINER

ROCCA, JOSEPH M

ART UNIT

PAPER NUMBER

3616

NOTIFICATION DATE

DELIVERY MODE

08/05/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/522,228	Applicant(s) NISHIOKA ET AL.	
	Examiner Joseph Rocca	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-2, 4, 6-8, 10, 12-14, 16, 18 and 19-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al. (U.S. App. 6,990,874 B2) in view of JP 10-7003.

Specifically with respect to **claims 1, 7, and 13**, Murakami discloses a tilt steering a column apparatus comprising:

- a. a steering shaft (Element 3) to which constructed to have a steering wheel (Element 2) mounted at a rear end portion thereof;
- b. a cylindrical steering column (Element 4) having said steering shaft (Element 3) rotatably supported therein;
- c. a pair of vehicle body-side brackets (Elements 13 and 16) the rear most bracket (Element 16) having vertically extending side plates (sides of Element 16, see Fig. 4) used to sandwich clam and fix said steering column (Element 4), each extending from a vehicle body-side strength member (Element 7, see Fig. 3) positioned above the steering column (Fig. 3, Elements 4 and 7), said side plates (Fig. 4, Element 16 (each respective side)) being disposed to clamp and

fix said expanded portion (Element 12) of said steering column (Element 4) therebetween (Fig. 4);

- d. a distance unit (Element 12) formed as an expanded portion (see Fig. 4, Element 12 [showing that the distance unit (12) expands as a portion from the top of the steering column]) of said steering column – with respect to the limitation that the distance unit is formed by plastic working and disposed between said body-side brackets the applicant should note that the method of forming the device is not germane to the issue of patentability of the device itself;
- e. a position adjusting means/ mechanism (Element 23) for making the position of said steering column (Element 4) with respect to said body-side brackets (Element 16) adjustable within a predetermined adjustment range – operable to adjust the position of said steering column (Element 4) relative to said side plates (Element 16),
- f. wherein said position adjusting means / mechanism comprises as its constituent element includes an adjusting bolt (Element 18) passing through said body-side brackets (Element 16) and through said distance unit (Element 12), and cooperable with a threaded member (Element 57) so as to releasably clamp said distance unit (Element 12) between said body-side brackets (Element 16), wherein the position adjusting mechanism further comprises a fastening mechanism (Fig. 4), and

g. said adjusting bolt (Element 18) is positioned above said steering shaft within said distance unit (Fig. 4) – within said expanded portion (Element 12) of said steering column.

With respect to **claims 2, 8, and 14**, Murakami further discloses a steering column apparatus, wherein said steering column is adjustable in a tilting direction with respect to said body-side brackets / side plates (Element 16), and lower ends of said body-side brackets/ side plates (Fig. 4), are positioned higher than a lower surface of a portion of said steering column disposed between said brackets in a most tilted-up position of said steering column (Figs. 1-4). Applicant should note that based on the existence of the rear bracket (Element 13) and the location of (element 16) it would be impossible for the lower ends of said body-side brackets/ side plates to be located below the lower surface of a portion of said steering column, when said steering column disposed between said brackets in a most tilted-up position of said steering column to be located below. Further, specifically with respect to claim 14, the side plates do not protrude downwardly relative to a lower surface of a lengthwise portion of said steering column disposed between said steering column (Fig. 4).

The additional limitations of **claims 4, 6, 10, 12, 16 and 18**, are also taught by Murakami, because as discussed above the limitation of using plastic working to form the distance unit is a method of forming the device and as such is not germane to the issue of patentability of the device itself. Accordingly, the limitation that said plastic working is performed by hydroforming is not germane to the issue of patentability of the

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device itself. Moreover, the applicant should note that the use of hydroforming to form components is old and well known in the art.

Murakami does not however, specifically disclose that the adjusting bolt is positioned within said distance unit of said steering column, between said steering shaft and an upper wall of said steering column. Nor does Murakami specifically disclose that said distance unit is disposed between said side plates with said steering shaft passing there through. JP 10-7003 teaches that, it is old and well known to utilize a distance unit that is disposed between said side plates with said steering shaft passing there through (Fig. 14), wherein the adjusting bolt is positioned within said distance unit of said steering column, between said steering shaft and a wall of said steering column (Figs. 1 and 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Murakami to utilize the distance unit taught by JP 10-7003, such that the steering column Murakami was modified in view of JP 10-7003 to comprise a distance unit that is disposed between said side plates with said steering shaft passing there through, wherein the adjusting bolt is positioned within said distance unit of said steering column, between said steering shaft and an upper wall of said steering column. The motivation for using said distance unit would be to reduce the number of parts required to form the steering column thereby also reducing the number of parts requiring assembly, while still maintaining a sufficiently strong structure.

Regarding **claims 19, 21, and 23**, the combination of Murakami as modified in view of JP 10-7003 further teaches that said adjusting bolt is positioned closer to said

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steering shaft than to said upper wall of said steering column. This is the case since Murakami is the base reference, and Murakami teaches the use of an adjusting bolt (element 18), which is located closer to the steering shaft than the upper wall of said steering column (See, Fig. 4, of Murakami). Accordingly, when the teachings of JP 10-7003 are incorporated into the combination of Murakami as modified in view of JP 10-7003, it would be obvious for this to still be the case.

As to **claims 20, 22, and 24**, the combination of Murakami as modified in view of JP 10-7003, does not specifically disclose that a distance between said adjusting bolt and said steering shaft is of the order of 1mm. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the combination of Murakami as modified in view of JP 10-7003, such that the distance between said adjusting bolt and said steering shaft is of the order of 1mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering either an optimum value of a result orientated variable and/or discovering an optimum or workable ranges involves only routine skill in the art. See, *In re Aller*, 105 USPQ 233 (CCPA 1955) and *In re Boesch*, 205 USPQ 215 (CCPA 1980). Furthermore, the applicant should note that the language “of the order of” is relatively broad, and would encompass dimensions greater or less than 1mm. Accordingly, it would be obvious to have a distance between said adjusting bolt and said steering shaft is “of the order of” 1mm, and with respect to the “of the order of” language the dimensions can encompass a variety of other distances.

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3. **Claims 3, 5, 9, 11, 15, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Murakami et al. (U.S. App. 6,990,874 B2) in view of JP 10-7003 as applied to claims 1-2, 4, 6-8, 10, 12-14, 16 and 18 above, and further in view of Ryne et al. (U.S. App. 2002/0066333 A1). As discussed above the combination of Murakami in view of JP 10-7003 teaches all of the limitations of claims 3, 5, 9, 11, 15, and 17, except for the use of an electric assist mechanism for assisting a steering power of said steering wheel is secured to a front end of said steering column. Ryne discloses the use of an adjustable steering column (Element 10) having an electric power assist mechanism (12), for assisting a steering power of said steering wheel, secured to a front end of the steering column (Figs. 1 and 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the combination of Murakami in view of JP 10-7003 to utilize an electric assist mechanism for assisting a steering power of said steering wheel is secured to a front end of said steering column, in view of the teachings of Ryne, so as to provide a means for making it easier for an operator to steer and drive the vehicle, which is designed in such a manner that is both reliable and designed to have a lower manufacturing cost, than similar power assist systems.

Response to Arguments

4. Applicant's arguments filed on 5/12/08 have been fully considered but they are not persuasive. In summary, the Applicant appears to argue that the combination of Murakami (U.S. 6,990,874 B2) as modified in view of JP 10-7003 is improper primarily because the adjusting bolt of JP 10-7003 is located at the bottom of the steering column

as opposed to being placed on the top of the steering column. However, despite this reasoning, the Examiner must still determine that the combination is legally and factually proper under 35 U.S.C. 103(a).

The applicant should note that JP 10-7003 is being used as a secondary reference (i.e. a teaching reference), teaching among other things that it is old and well known to utilize: (A) a steering column assembly having an expanded portion, wherein, a bolt is positioned between the steering shaft and a wall of the steering column (which is shown by Fig. 14 of JP 10-7003) and (B) a steering shaft passing through said side plates of a body side bracket (which is also shown in Figure 14 of JP 10-7003). While it is true that JP 10-7003 discloses that the adjusting bolt of JP 10-7003 is in fact located at the bottom of the steering unit, this fact is not consequential as to whether or not the combination is proper. The reason that this fact is inconsequential as to the propriety of the rejection is due to the fact that Murakami (the base / primary reference) discloses an orientation, wherein the orientation of the steering column is reversed (i.e. the adjusting bolt is located at the top of the steering column). Accordingly, in modifying Murakami to utilize a steering column assembly having an expanded portion, wherein, a bolt is positioned between the steering shaft and a wall of the steering column and a steering shaft passing through said side plates of a body side bracket, in view of the teachings of JP 10-7003, the orientation of Murakami would be maintained (because this orientation would not be modified). Accordingly, the result of the combination of Murakami as modified in view of JP 10-7003 would be to create a steering column wherein the adjusting bolt is positioned, within said distance unit of said steering column, between

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said steering shaft and an upper wall of said steering column (meaning that after the modification the result is a steering column, wherein the adjusting bolt is located at the top of the steering column). In other words the picture of the steering column, shown in Figure 14 of JP 10-7003 would be essentially flipped (rotated about its longitudinal axis by about 180 degrees) to make it compatible with the other structure of Murakami. Accordingly, this argument is not persuasive, and the rejection is being maintained. Moreover, the applicant should note that based on the structure of Murakami there is no evidence to suggest that using the expanded portion of JP 10-7003 in the manner discussed above would in anyway render the result of the combination to be non-functional or undesirable because all of the functions of Murakami could easily be adapted to work with an expanded portion of the type disclosed by JP 10-7003.

Accordingly, for the above reasons the rejections are being maintained and this Office Action is being made final.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Rocca whose telephone number is 571-272-5191. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on 571-272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph Rocca/

Examiner, Art Unit 3616

/Christopher P Ellis/

Supervisory Patent Examiner, Art
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